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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SING, SIMON P

ART UNIT

PAPER NUMBER

2645

DATE MAILED: 07/03/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/394,096

Applicant(s)

DAVIS ET AL.

Examiner

Simon Sing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 4-5 of the Remark filed on 5/7/2003, with respect to claims 1-22 have been fully considered and are persuasive. The final rejection of claims 1-22 has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7, 9-11, 14-17, 19, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Villa-Real US 4,481,382 and further in view of Sacca US 5,692,042.

2.1 Regarding claims 1 and 22, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches using a speakerphone 18 (column 13, lines 29-31) with two recording/playback modules 12 and 14, one for playback and one for recording (column 22, lines 38-47). Chamberlin also teaches independent operation of each recording/playback module, and independent operation of the speakerphone (column 16, lines 19-43). Chamberlin's telephone system comprising:

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a receive signal from a telephone line (Figure 6; column 16, lines 2-8);

a summer in an interface 66 (Figure 6; column 22, lines 38-47);

a gain module in a receiving path [it is inherent that a speakerphone has an amplifier in its receiving path]; and

a message playback signal from a tape player (column 21, lines 27-36; column 22, lines 38-47);

Chamberlin fails to teach that the message playback signal is combined with said receive signal by said summer, allowing simultaneously hearing by a local user of said speakerphone.

However, Villa-Real discloses a programmable telephone system in figures 1-6. Villa-Real teaches playback a pre-recorded advisory message during a telephone conversation when a conversation recording button is activated (column 2, lines 19-28; column 12 line 57 to column 13, line 18).

In addition, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with receive signals and microphone signals at summing amplifiers 120 and 142 (column 8, lines 39-49; figure 1), and individual users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chamberlin's reference with the teachings of Villa-Real and Sacca, so that when a recording button of the recording/playback module 12 was activated during a telephone conversation, a pre-recorded message from the recording/playback module 14 advising the far end party about telephone conversation recording, would have been played back onto the telephone line and combined with the received signal allowing simultaneously hearing of a near end user, because such a modification would have enabled a near end user to address legal issues by playing an advisory message to a far end party, and recording the advisory message with a telephone conversation.

2.2 Regarding claim 2, the Chamberlin's reference, modified by Villa-Real and Sacca, Sacca teaches a switched loss echo suppression module 126 in figure 1 to reduce acoustic coupling from speaker to microphone in a transmit mode (Sacca, column 1, lines 56-61; column 2, lines 30-37; column 10, lines 30-41).

2.3 Regarding claim 3, the Chamberlin's reference, modified by Villa-Real and Sacca, Sacca teaches a side tone canceller 104 in figure 1. Sacca further teaches that the message playback signal is combined with the received signal at a point after the side tone canceller 104 (Figure 1).

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2.4 Regarding claim 4, it is inherent that the recording/playback module 14 has an amplifier in its output signal path.

2.5 Regarding claim 7, the Chamberlin's reference, modified by Villa-Real and Sacca, Sacca teaches that the switched echo loss suppression module is located in said receive path after a gain module 106.

2.6 Regarding claim 9, the Chamberlin's reference, modified by Villa-Real and Sacca, Sacca teaches a receive/transmit detector 154 in figure 1 (Sacca, column 9, lines 7-32).

2.7 Regarding claim 10, the Chamberlin's reference, modified by Villa-Real and Sacca, is a telephone answering device (Camberlin, column 21, lines 27-36).

2.8 Regarding claim 11, the Chamberlin's reference, modified by Villa-Real and Sacca, teaches that recording and playback signals are summed at voice line 60, but fails to teach the record signal is from a gained representation of said received signal summed with a gained transmit signal.

However, Sacca further teaches that the message playback signal is injected into the receive path after amplified [gained] received signals and into the transmit path after amplified transmit [microphone] signals (figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference with the further teachings of Sacca, so that the record signal would have been tapped from the same points where the message playback signal injected, because a modification would have clarified the modified Chamberlin reference, and tapping signal from a point for recording would have been a matter of design choice.

2.9 Regarding claims 14 and 15, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches using a speakerphone 18 (column 13, lines 29-31) with two recording/playback modules 12 and 14, one for playback and one for recording (column 22, lines 38-47). Chamberlin also teaches independent operation of each recording/playback module, and independent operation of the speakerphone (column 16, lines 19-43). Chamberlin fails to specifically teach the details of the speakerphone and recording a receive signal while the receive signal is summed with a message playback signal during a telephone conversation.

However, Villa-Real discloses a programmable telephone system in figures 1-6. Villa-Real teaches playback a pre-recorded advisory message during a telephone conversation when a conversation recording button is activated (column 2, lines 19-28; column 12 line 57 to column 13, line 18).

In addition, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode

(column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with receive signals and microphone signals at summing amplifiers 120 and 142 (column 8, lines 39-49; figure 1), and individual users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired. Sacca further teaches a side tone canceller [hybrid echo canceller] 104 in the receive path (Figure 1), and a receive state and a transmit state of speakerphone operation (column 2, lines 28-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chamberlin's reference with the teachings of Villa-Real and Sacca, so that when a recording button of the recording/playback module 12 was activated during a telephone conversation, a pre-recorded message from the recording/playback module 14 advising the far end party about telephone conversation recording, would have been played back onto the telephone line and combined with the received signal allowing simultaneously hearing of a near end user, and the speakerphone 18 would have had a hybrid echo canceller in its receive path, a summer after said hybrid echo canceller for summing a message playback signal, and a receive state and a transmit state in speakerphone mode, because such a modification would have enabled a near end user to address legal issues by playing an advisory message to a far end party, and recording the advisory message with a telephone conversation, and would have clarified the detail operation of speakerphone 18.

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2.10 Regarding claims 16 and 19, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches using a speakerphone 18 (column 13, lines 29-31) with two recording/playback modules 12 and 14, one for playback and one for recording (column 21, lines 27-36). Chamberlin also teaches independent operation of each recording/playback module, and independent operation of the speakerphone (column 16, lines 19-43). Chamberlin teaches using the recording/playback module 12 for recording a telephone conversation and the recording/playback module 14 for playback a pre-recorded message to a far end user (column 16, lines 2-5; column 22, lines 38-43). Chamberlin teaches the steps of:

- establishing a telephone call (column 7, lines 10-13; column 13, lines 29-33);

- initiating a speakerphone function (column 13, lines 29-31);

- playing back a voice message pre-recorded on said speakerphone (column 22, lines 38-43); and

- recording a telephone conversation (column 16, lines 2-5, 24-29; column 22, lines 38-43).

Chamberlin fails to teach playing back said voice message during a telephone conversation.

However, Villa-Real discloses a programmable telephone system in figures 1-6. Villa-Real teaches playback a pre-recorded advisory message during a telephone conversation when a conversation recording button is activated (column 2, lines 19-28; column 12 line 57 to column 13, line 18).

In addition, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with receive signals and microphone signals at summing amplifiers 120 and 142 (column 8, lines 39-49; figure 1), and individual users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chamberlin's reference with the teachings of Villa-Real and Sacca, so that when a recording button of the recording/playback module 12 was activated during a telephone conversation, a pre-recorded message from the recording/playback module 14 advising the far end party about telephone conversation recording, would have been played back onto a telephone line concurrent with a telephone conversation, because such a modification would have enabled a near end user to address legal issues by playing an advisory to a far end party while on a telephone conversation.

2.11 Regarding claims 17 and 20, the Chamberlin's reference, modified by Villa-Real and Sacca, Chamberlin further teaches that the telephone system is a telephone answering device (column 21, lines 27-36).

3. Claims 5, 6, 8, 12, 13, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Villa-Real US 4,481,382 and further in view of Sacca US 5,692,042 and further in view of Li US 5,612,996.

3.1 Regarding claims 5, 6, 12 and 13, the Chamberlin's reference, modified by Villa-Real and Sacca, teaches gain modules in signal paths, but fails to teach that these gain modules comprise an automatic gain control (AGC) portion and a fixed gain portion.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches in figure 1 that a gain module comprises an AGC portion 136 (or 120) and a fixed gain portion 138 (or 122).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real and Sacca, with the teaching of Li so that the gain modules would have comprised an AGC portion and a fixed gain portion, because such a modification would have provided a fixed level signal to the speakerphone.

3.2 Regarding claim 8, the Chamberlin's reference, modified by Villa-Real and Sacca, teaches playing back a pre-recorded message during a telephone conversation, but fails to a digital to analog converter (DAC) at a point after the switched loss ech suppression module in the receive transmit path.

However, Li discloses a digital speakerphone in figure 2. Li teaches a DAC module 260 before speaker 264.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real and Sacca, with the teaching of Li so that a digital to analog converter would have been included if a digital speakerphone was used, because such a modification would have converted a digital signal back to analog for the speaker of a digital speakerphone.

3.3 Regarding claims 18 and 21, the Chamberlin's reference, modified by Villa-Real and Sacca, teaches playing back a pre-recorded message during a telephone conversation, but fails to teach the playback signal is injected digitally.

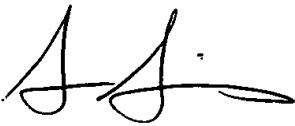
However, Li discloses a digital speakerphone in figure 2. Li teaches that analog signals from a telephone line are converted to digital for digital signal processing (column 6, lines 56-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real and Sacca, with the teaching of Li so that a playback signal would have been injected digitally when a digital speakerphone was used, because such a modification would have converted an analog signal from a tape player into a digital signal to be processed by a digital speakerphone.

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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.



S.S.

06/26/2003

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